
Vivitar®



Vivicam 3725 User Manual

English

021009

Warranty Policy

This camera is under warranty for one full year from the date of purchase by the original purchaser. In case of defects in materials or workmanship, we will replace or repair the camera free of charge. This warranty applies to the camera only. This warranty does not include batteries, or other accessories that have not been manufactured by our company. This warranty will not be honored if the camera has been mishandled or tampered with, or altered by anyone other than the manufacturer. Other than for the warranty herein, we are not responsible for loss, damage, or inconvenience of any kind.

A defective camera being returned under warranty must be accompanied by a brief description of the difficulties encountered and also by a proof of purchase with the date of purchase clearly indicated. All related transportation costs and insurance are at the owner's expense. Any alteration of this warranty cannot be made without the written approval from our company.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in commercial installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, detectable by turning the equipment in question off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna; Increase the distance between the equipment and the receiver; Connect the equipment to an outlet on a different circuit than that which the receiver is connected to; Or consult the dealer or an experienced radio/TV technician for help.

NOTE

A shielded-type DC power cable incorporated with a ferrite core is required in order to meet the FCC emission limits and also to prevent interference to the nearby radio and television reception. Use only shielded I/O cable incorporated with a ferrite core to connect this equipment to host computer and TV set. Shielded A.C. power cable and shielded I/O cables are required in order to meet the FCC emission limits. It is essential that only the supplied power cord and I/O cable(s) be used.

Warning

- 🚫 Do not use this camera if it is emitting smoke, becomes unusually hot to be touched, emitting any unusual odor or noise, or if it is in any other abnormal states.
Operating the camera in any of these situations may cause a fire or an electrical shock.
- 🚫 (batteries or AC power adapter). (If you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.)
After checking that smoke is no longer being emitted, contact your dealer or your local authorized service facility and request repairs. never attempt to repair this camera yourself as this is dangerous.
- 🚫 Do not use the camera if any water has entered the camera.
Turn the camera off, and then disconnect the power source (batteries or AC power adapter). (if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.) Then contact your dealer or your local authorized service facility. Do not continue to use the camera as this may cause a fire or an electrical shock.
- 🚫 Do not use the camera if any foreign objects have entered the camera. Turn the camera off, and then disconnect the power source (batteries or AC power adapter).
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.) Then contact your dealer or your local authorized service facility. Do not continue to use the camera as this may cause a fire or an electrical shock.
- 🚫 If the camera has been dropped or if the camera case has been damaged, turn the camera off, and then disconnect the power source (batteries or AC power adapter). (if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.) Then contact your dealer or your local authorized service facility.
Do not continue to use the camera as this may cause a fire or an electrical shock.

Warning

- 🚫 Do not place the camera in any unstable locations such as on a wobbly table or sloping surface where the camera may fall or tip over and cause injury.
- 🚫 Do not expose the camera to moisture and make sure that there is no water getting into the camera.
Take particular care when using the camera under extreme weather conditions such as rain or snow, or when operating the camera at the beach or near water.
Water in the camera may cause a fire or an electrical shock.
- 🚫 Do not insert or drop metallic or inflammable foreign objects into the camera through access points such as the memory card slot. This may cause a fire or an electrical shock.
- 🚫 Do not attempt to modify this camera.
This may cause a fire or an electrical shock.
- 🚫 Do not remove the camera casing. This may cause an electrical shock.
Internal inspection, maintenance and repairs should only be carried out by your dealer or local authorized service facility.
- 🚫 Avoid using this camera in the bathrooms.
Exposure to excessive moisture may cause a fire or an electrical shock.
- 🚫 Do not touch the power plug during a thunderstorm if you are using the AC power adapter.
This may cause an electrical shock.
- 🚫 Never operate this camera in any way while driving a vehicle.
This may cause a traffic accident.

Caution

-  Do not place this camera in damp or dusty locations.
This may cause a fire or an electrical shock.
-  Do not place this camera in a location affected by oil fumes or steam, such as near a cooking stove or humidifier. This may cause a fire or an electrical shock.
-  Do not leave this camera in a location subject to extremely high temperatures, such as in a sealed vehicle or in direct sunlight.
Exposure to high temperatures may adversely affect the camera case and internal components and may cause a fire.
-  Do not cover or wrap the camera or the AC power adapter with a cloth or quilt.
This may cause heat to build up and distort the case and cause a fire.
Always use the camera and its accessories in well-ventilated locations.
-  Handle the camera carefully and do not bump the camera into any hard object.
Handling the camera roughly may cause a malfunction..
-  Do not move the camera while it is switched on.
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have switched off the camera.)
Ensure that any connector cords or cables to other devices are disconnected before moving the camera, Failure to do so may damage the cords or cables and cause a fire or an electrical shock.
-  When handling the camera, always unplug it from the power source (batteries or AC power adapter) for safety.
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.)
Failure to do so may result in an electrical shock.

Caution

-  When leaving the camera unused for long periods, such as during a vacation, always unplug the camera from the power source (batteries or AC power adapter) for safety. (if you are using the AC power adapter, unplug the dapter from the AC power outlet after you have disconnected the camera.)
Failure to do so could result in a fire.
-  Do not use batteries other than those specified for use with your camera.
The use of unsuitable batteries may result in the batteries splitting or leaking and causing a fire, injury, or soiling of the battery compartment.
-  When fitting batteries into the camera, check the polarity markings on the battery (- and +) to ensure that you insert the battery correctly.
Incorrect battery polarity may result in the batteries splitting or leaking and causing a fire, injury, or soiling of the battery compartment.
-  Remove the batteries if the camera will not be used for an extended period of time. The batteries may leak and cause a fire, injury or soiling of the battery compartment.
If the batteries leak, clean and wipe the battery compartment carefully and install new batteries.
Wash your hands carefully if you touch the battery fluid.

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Preparation

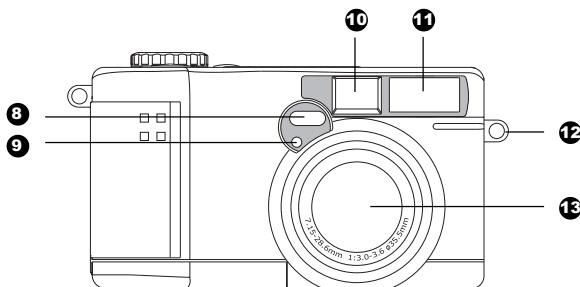
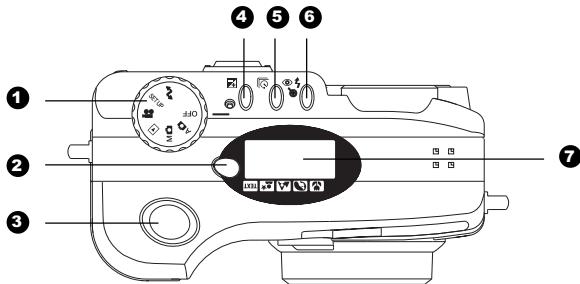
Preparation

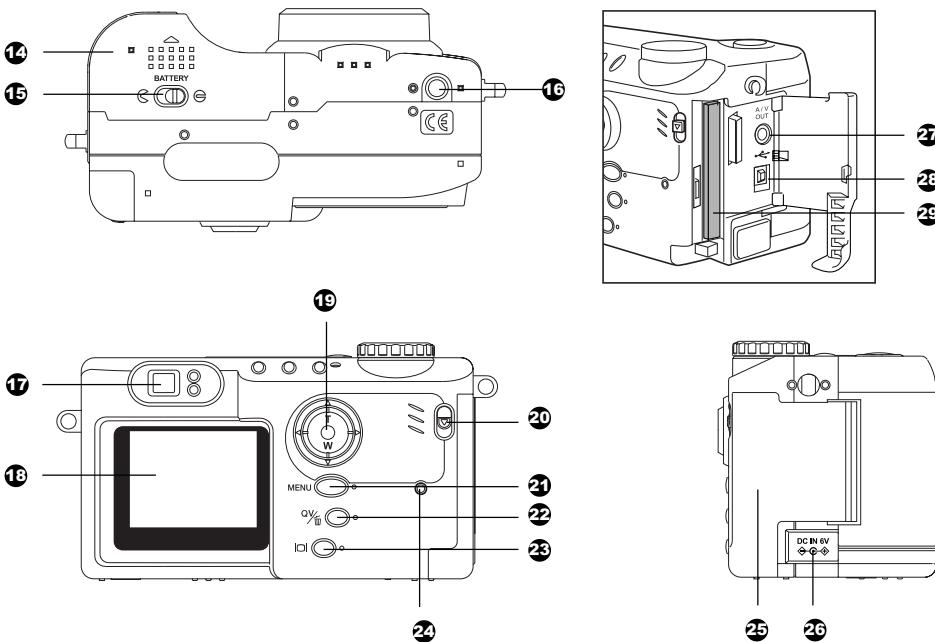
Thanks you for purchasing this digital camera. Here below we will guide you through the whole picture taking process, please read this User's Manual carefully and keep them in a safe place for future reference.

Checking Accessories

- Software CD-ROM
- AV Cable, USB Cable
- Battery
- Remote Control
- Lens Cap
- Pouch and Neck Strap
- Owner's Manual, Quick Start Guide
- CompactFlash™ Memory Card (optional)

Names of Parts





- ① Main switch
- ② Subject mode button
- ③ Shutter button
- ④ Exposure compensation button
- ⑤ Self-timer/Drive mode button
- ⑥ Flash mode/Magnification button
- ⑦ Status LCD
- ⑧ Remote control receiver
- ⑨ Self-timer/Remote control LED
- ⑩ Viewfinder window
- ⑪ Flash
- ⑫ Strap holder
- ⑬ Lens
- ⑭ Battery door
- ⑮ Battery door lock

- ⑯ Tripod socket
- ⑰ Viewfinder
- ⑱ LCD monitor
- ⑲ 5-way button(▲ (T)/ ▼ (W)/ ▲ / ▼ and center Enter buttons)
- ⑳ Terminal door release
- ㉑ Menu button
- ㉒ QV/Delete button
- ㉓ Display button
- ㉔ Card access LED
- ㉕ Terminal door
- ㉖ AC adapter terminal
- ㉗ A/V out terminal
- ㉘ USB terminal
- ㉙ CF card slot

Main switch

Auto mode **A** : Images can be recorded using default settings.

Manual mode **M** : Images can be recorded using manual settings.

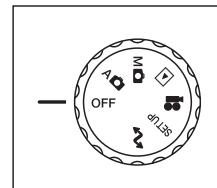
Playback mode **▶** : Images recorded can be played back on the LCD monitor.

Movie mode **REC** : Digital video clips can be recorded using this mode.

Setup mode **SETUP** : Various camera functions and operation settings can be customized.

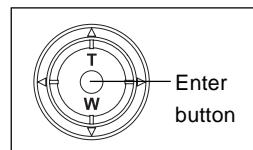
PC mode **PC** : Data can be transferred to a PC.

Power OFF **OFF** : The camera is turned off.



5-way button

Used for zoom operation and menu operation. Pressing the center acts as the ENTER button.



MENU - to display menus of various camera modes.

QV - to quick view or delete recorded images

INFO - to toggle the Color LCD monitor with information on, with information off and monitor off.

Status LCD



MACRO

PORTRAIT

LANDSCAPE

NIGHT PORTRAIT

TEXT



Subject mode indicators



White balance indicator



Manual focus indicator



Camera sensitivity indicator



Spot metering indicator



Exposure compensation indicator



Exposure mode indicators



Flash mode indicators



Image size display



Image quality display



Drive mode indicators



Microphone indicator

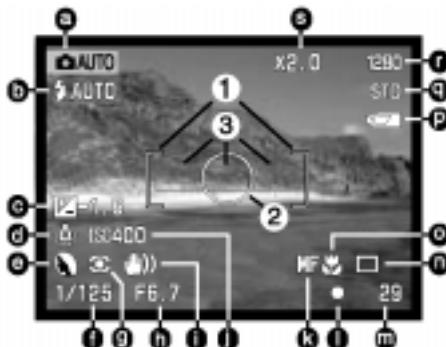


Battery level indicator



Frame counter (when the camera switches to PC mode, "USB" is displayed.)

Color LCD Monitor Indicators



a Camera mode	l Focus signal
b Flash mode	m Frame counter
c Exposure compensation	n Drive mode
d White Balance indicator	o Macro mode
e Exposure mode / Subject mode	p Battery level
f Shutter speed	q Image quality
g Metering mode	r Image size
h Aperture	s Digital zoom
i Camera shake warning	1 Focus Frame
j Camera sensitivity (ISO)	2 Spot metering
k Manual Focus	3 AF sensors

Preparing the Power Supply

Always turn the main switch to the OFF position before changing power supply.

Loading the batteries

1. Slide the battery door lock to open position .
2. Slide the battery door in the direction indicated by the arrow.
3. Insert AA batteries (4 units) with polarity as shown in the diagram inside the battery compartment.
4. Close the battery door and slide the battery door lock to close position .

- AA alkaline batteries and AA nickel-hydrogen batteries can be used.
- Do not use a mix of different types, manufactures, classifications of batteries.
- Rechargeable batteries cannot be charged in the camera.

Battery life indicator

Located on the status LCD, the battery life indicator is active at all times while the camera is on. It shows you the power level of the batteries. The number of pictures that can be taken varies according to the performance and usage conditions of the batteries.



Full battery power



Low battery power



No battery power

Using the AC adapter

The AC adapter allows the camera to be powered from an electrical household outlet. It is recommended when the camera is interfaced with a computer or during periods of heavy use.

1. Remove the DC terminal cover.
2. Insert the mini plug of the AC adapter into AC adapter terminal.
3. Insert the AC adapter plug into an electrical outlet.

- *Always use the AC adapter from the manufacture. Otherwise fire and/or electrical shock may occur as a result.*
- *When carrying the camera overseas, check with a travel agency, etc., and prepare a conversion adapter suitable for the power plug of the destination country in advance.*

Auto shut-off function

When using the camera with batteries and no operation is made for a certain time, the camera power will automatically turn off to prevent battery depletion. To restore from auto shut-off, press the menu, quick view, display or 5-way controller button, or switch the main switch to another position. The time for auto shut-off is factory set to 1 min, and the setting can be changed in the SET-UP menu. (See page 36.)

Note: The auto shut-off function operates even when using the AC adapter.

Inserting/Removing the CompactFlash Card

Always turn the main switch to the OFF position and confirm the card access LED is off before inserting/removing the CompactFlash Card, otherwise the card may be damaged.

Inserting the card

1. Slide down the terminal door release to open the terminal door.
2. Face the label of the CompactFlash Card toward the front of the camera and the end of the connector toward the card slot.
3. Carefully insert the card into the camera until a click is heard. The card Eject button pops out.

4. Close the terminal door.

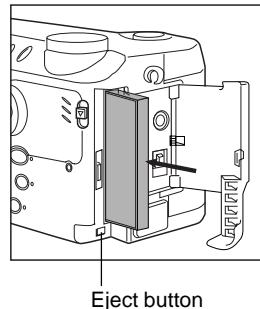
- *CompactFlash Card cannot be inserted and locked if the front/back sides or the up/down direction are incorrect.*
- *Do not use force when inserting CompactFlash Card. Damage may occur to the connector section.*
- *The storage capability of the CompactFlash card will diminish with extended use. It may be necessary to purchase a new card periodically.*
- *If the card-not-recognized message appears, the inserted card in the camera may need to be formatted. When a card is formatted, all the data on the card is permanently erased.*
- *If the unable-to-use card message appears, the card is not compatible with the camera and cannot be formatted.*

Removing the card

1. Open the terminal door.
2. Press the Eject button. The card will unlock and eject.
3. Close the terminal door.

Warning :

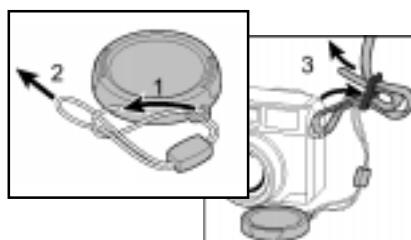
- *Improper use of the CompactFlash Card may cause data loss or damage. It is recommended to make a backup copy of any important data in another storage media, such as hard disk, CD-ROM, etc.*
- *Keep away foreign objects from the terminal section.*
- *Keep away from static electricity and electromagnetic fields.*
- *Do not bend, drop or apply excessive force.*
- *Keep away from heat, moisture and direct sunlight when using and for storage.*



Eject button

Attaching the Neck Strap and Lens Cap

1. Attach the small strap to the lens cap. (1) (2)
2. Attach the neck strap to the camera strap holder and the lens cap strap. (3)



Setting the Menu Display Language and Time/Date

To set the Language:

1. Turn the Main Switch to **SETUP** mode. SETUP menu appears on LCD.
2. Press **▼** button until the Language item is highlighted.
3. Press the **▶** button to display the language options. Use the **▲ / ▼** buttons to highlight the new setting.
4. Press the **Enter** button to select the highlighted language.

To set the Date/Time:

5. Press the ▲ button to scroll up the menu to the section tab on the top.
6. Press the ► buttons to select the Custom 2 tab.
7. Press the ▼ button until the Date/Time set item is highlighted. Press the ► button , then press Enter button.
8. Select a field (month, day, year, hour, minutes) by pressing the ◀ / ► buttons. (The pair of arrowheads that appears over a field indicates that it is currently selected.)
9. Press the ▲ / ▼ buttons to increase/decrease the value in a field.
10. When you are done changing the date and time settings, press the **Enter** button.



Auto Recording

Auto Recording

Turn the main switch to  , all camera operations are fully automatically. It allows you to concentrate on the actual image to record. The autofocus, exposure, and imaging systems will work together to bring beautiful results effortless. Although many of the camera's system in this mode are automatic, several camera operations can be optimized. Options are subject mode, flash mode, drive mode, EV compensation, image size and image quality.

Taking Pictures

1. Make sure that a CompactFlash Card is properly inserted.(Page 13)
2. Set the main switch to  . The lens will extend.
3. Select the image size and quality. (page 27)
4. Press the MODE button to set the subject mode. (page 17)
5. Look through the viewfinder and then press the  (W) and  (T) buttons to set the subject size and the image composition. (page 17)
6. Lightly press the shutter button (halfway) to lock the focus and exposure.
 - *The Focus and Flash LED will light steadily and the focus and exposure will be locked.*
 - *Releasing the finger from the shutter button after locking the focus position will cancel the focus lock.*
 - *If the subject to focus is not in the center of the viewfinder, perform "Focus Lock Recording" (page 17).*
7. Make sure the subject is within the focus range of the lens. (page 17)
8. Gently press the shutter button completely.
 - *The card access LED will light indicating image data is being written to the CompactFlash card. When LED turns off, the writing process is completed.*

Number of recordable images

The frame counter indicates the approximate number of images that can be stored on the CompactFlash card at the camera's image quality and size settings. If the settings are changed, the frame counter adjusts accordingly. The number of recordable images may vary depending on the recorded subject and the capacity of the memory card, or if there are files other than images, or when recording is made while switching the picture quality /resolution.

Image Quality \ Image Size	2048x1536	1600x1200	1280x960	640x480
Super fine	1	2	4	15
Fine	8	14	20	47
Standard	15	23	32	63
Economy	24	35	45	78

*The values shown above are guides when recording using the same image size and quality on a 16 MB SanDisk CompactFlash card.

Zoom Control

This camera features two types of zooming, optical zooming and digital zooming (2X). The optical zoom range is equivalent to 35 - 140mm in a 35mm camera.

Optical Zoom

1. Press the ▼ (W) button, the subject will move the lens towards to the wide-angle position, meaning zoom away from your subject.
2. Press the ▲ (T) button, will move the lens towards to the telephoto position, meaning zoom in your subject.

Digital zoom

1. Turn on the LCD monitor
2. Press the ▲ button until the lens has been moved to the maximum telephoto position.
3. Press the ▲ button again will activate the digital zoom.
 - X2.0 will be displayed on the Color LCD.
 - To cancel the digital zoom, press the ▼ button.

Focus Lock Recording

For normal recording, aim at the subject using the entire viewfinder area. To focus, position the subject within the diagonally-lined center area of [] located at the center of the viewfinder. If the subject to record is not in the center of the viewfinder, position the subject so that it falls within the focus frame and lightly press the shutter button (halfway). While continuing to hold the shutter button down lightly (halfway), re-position the subject for the desired composition and gently press the shutter button down completely to record.

Focus Range

Lens Position	Effective focus range
Wide-angle lens position	0.5 m ~ ∞
Telephoto lens position	0.9 m ~ ∞
Macro	0.16 m ~ 0.6 m

- All distances are measured from the CCD.

Selecting the Subject Modes

By selecting a preset subject mode using the MODE button, the subject can be recorded in the optimal condition. Pressing the **MODE** button will cycle through the subject modes: macro, portrait, landscape, night portrait, text and the original normal mode. The selected subject mode is pointed by the arrow icon ▲ on the status LCD.

(Macro) Mode

Used when the subject is within a distance range of between 16cm and 60cm from the CCD. When the macro mode is selected, the lens will automatically zoom to the correct position. The LCD monitor will automatically activate and should be used to composite the picture. The viewfinder

cannot be used because of parallax. The flash will not fire when set to an auto flash mode.

(Portrait) Mode

Optimized to reproduce soft skin tones and a slight defocusing of the background. Most portraits look best at a telephoto setting; the longer focal length does not exaggerate facial features and the shallower depth of field softens the background.

(Landscape) Mode

Optimized to produce sharp, colorful landscapes. Used when recording scenery. The flash will not fire in this mode when set to auto flash mode.

(Night Portrait) Mode

Used when recording portrait with night scenes. Set the flash mode to fill-in flash when taking portraits, and ask your subject not to move after the flash burst ; the shutter will still be open for the background exposure. Under low light conditions, the shutter speed will become slow. Since this may result in the image becoming blurred, use of a tripod is also recommended.

(TEXT) Mode

Used for the crisp reproduction of black text on white background. The flash will not fire in this mode when set to an auto flash mode. Use of a tripod is recommended.

Selecting the Flash Modes

Toggle the **flash mode** button to select Auto flash, Fill-in, Off, Auto flash with Red-Eye Reduction, Fill-in flash with Red-Eye Reduction until the desired mode is displayed. The flash recording range is 0.5 to 3.5m when the camera is set to wide-angle position and 0.9 to 3.0m when set to telephoto position.

(Auto flash) Mode

When recording in a dark place and backlit conditions, the camera will automatically determine whether the flash is necessary.

(Fill-in Flash) Mode

Used to soften dark shadows on the face of the subject due to back light, strong direct light or sunlight. The flash will always be used regardless of the surrounding brightness.

(Flash Off) Mode

Used when recording in a place where flash photography is prohibited, or when utilizing the night view or indoor lighting for recording. The flash will always be off during recording.

Under low light conditions, the shutter speed will become slow. Since this may result in the image becoming blurred, use of a tripod is recommended. The camera shake warning may appear when Flash Off is selected. (Page 40)

(Red-eye Reduction) Mode

Pre-flash is performed before the main flash to reduce the red-eye; an effect caused by light reflected from the retina. Use in low-light conditions when photographing people or animals. The pre-flashes contract the pupils of the subject's eyes.

Note: The red-eye reduction may have little effect if the subject is not directly facing the pre-flash or main flash, or when there is some distance between the camera and the subject.

Selecting the Drive Modes

Toggle the drive mode button to select single frame advance (default), self-timer/remote control, continuous advance, bracketing until the desired mode is displayed.

 Single frame advance - To take a single picture each time the shutter button is pressed.

 Self-timer/remote control - To delay the release of the shutter.

 Continuous advance - To take multiple pictures when the shutter button is pressed and held.

 Bracketing - To take a series of three images with differing exposures.

(Self-timer) Mode

This mode automatically releases the shutter after a delay so that the person making the recording can be included in the image. The self-timer LED on the front of the camera will blink in red and the shutter will be released after about 10 seconds.

- To cancel the self-timer during the 10-sec countdown, press the  drive mode button.

(Continuous Advance) Mode

Continuous advance acts like a motor drive on a film camera. Number of images that can be captured at a time. The rate of the capture depends on the image quality and image size setting. The maximum rate of capture is 1.0fps. This mode cannot be used with the image quality of Superfine. The following chart lists the maximum number of images that can be captured with different image quality and image size combinations.

Image Quality \ Image Size	2048x1536	1600x1200	1280x960	640x480
Fine	4	5	7	14
Standard	5	7	10	19
Economy	8	11	14	25

(Bracketing) Mode

This mode makes a three image bracket of a scene. Bracketing is a method of taking a series of images with different exposures. The order of the bracket series is normal exposure, underexposure and overexposure. The exposure bracket in Auto Recording mode is set to 0.5 EV increments. In Manual Recording mode, the increments can be set to 0.3, 0.5 or 1.0. (page 32)

- When using exposure compensation, the bracketing series will be made in relation to the compensated exposure.

Exposure Compensation

The exposure can be compensated to intentionally brighten or darken the overall recorded image within the range of ± 2.0 at 1/3 intervals. The exposure compensation value (EV) will remain in effect until it has been reset. In auto recording mode, EV is also reset when the main switch is moved to another position.

The EV must be set before the image is captured. When setting the EV, the amount of the compensation is shown next to the EV icon on the color LCD monitor. If the flash mode is set to auto flash, the flash will not fire. To use the flash, set the flash mode to fill-flash.

1. To adjust the exposure, press the EV button. The  EV icon will appear on the color LCD Monitor.
2. Use the **◀ / ▶** buttons to adjust the exposure compensation value.
3. Press the EV button to set the adjustment in exposure.

Quickview and Deletion

Captured images can be viewed and deleted in auto recording and manual recording modes. Simply press the **QV/delete** button to access the images, and use the 5-way button to scroll through pictures on the CompactFlash card.

1. Press the **QV/delete** button to play back the recorded images.
2. Press the **◀ / ▶** buttons to scroll through the images.
3. Press the **▲** button to display image information overlay. Press the **▼** button to cancel the image information display.
4. Press the **QV/delete** button again will bring up the "Delete this frame" message.
5. Use **◀ / ▶** buttons to select Yes and press the **ENTER** button will delete the single image.
6. To return to the recording mode, press the **menu** button.

Manual Recording

Manual Recording

The basic operation of the camera in manual recording mode is identical to auto recording mode. Thoroughly familiarize yourself with the previous section before moving on.

Turn the main switch to  , so that recording can be made with user-defined settings. Unlike auto recording mode, all settings made in manual recording are not reset when the position of the main switch is changed. For more information on how to customize the camera settings at this mode, please refer to page (Page 29~32).

Changing the Exposure Modes

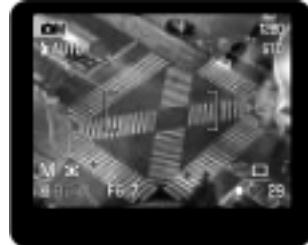
The camera features three exposure modes : program (default), aperture priority and manual exposure. The proper combination of shutter speed and aperture results in a correct exposure.

Exposure modes are set in the basic section of the manual recording mode menu. (page 29)

Long Time Exposure

Bulb photographs can be taken in the manual exposure mode. Exposures up to 15 seconds can be made by pressing and holding the shutter button. Use a tripod to avoid camera shake.

1. Set the camera to manual recording mode  and press the menu button.
2. Set the exposure mode to manual in the basic section.
3. Use the  button to decrease the shutter speed value below four seconds until "bulb" is displayed.
4. To set the aperture value, press the EV button. The aperture display should turn blue. Use the  /  buttons to set the aperture.
5. To take the pictures, press and hold the shutter button for the duration of the exposure. Release the shutter button will end of the exposure. The LCD monitor will be blank during the exposure.



- When bulb exposure is used, a separate light meter is recommended.
- Long exposures may add noise because of the unusually long exposure time.

Changing the Focus Modes

This camera has autofocus and manual control. The focus mode is set in the basic section of the manual recording mode menu. (Page 31)

Changing the White Balance

White balance allows you to obtain the highest color fidelity possible by taking into account the lighting conditions in which the camera is operating. Set the appropriate white balance setting to remove the color cast that the current lighting conditions add. White Balance is set in the basic section of the manual recording mode menu. (Page 30)

Changing the ISO

The ISO setting controls the imager sensitivity to the light. The ISO range for your camera is 100 to 800. The higher the number, the greater the sensitivity. ISO is set in the basic section of the manual recording mode menu. (Page 31)

Recording in Black and White

Used for expressing a nostalgic feeling similar to using black-and-white film, or for recording characters on a magazine, blackboard, etc. as memos. Black and White recording is set at the Color mode in the custom 2 section of the manual recording mode menu. (Page 32)

Movie Recording

Movie Recording

Movies can be recorded with this camera. The motion JPEG image is 320 X 240 pixels. The effective image area is 304x240 pixels. The maximum recording time for a movie is up to 60 seconds.

In movie recording, some functions can be used, some are fixed, and some are disabled. Exposure compensation and macro mode can be used. The focus mode is set to auto focus. The exposure mode is set to program; camera sensitivity and white balance is set to auto. The flash and digital zoom is disabled. This mode has no menu controls.

1. Set the main switch to  . The  icon will appear on the Color LCD monitor.
 - *The LCD monitor will not turn off even when pressing the DISPLAY button at this mode.*
 - *The Status LCD and LCD monitor frame counter will show the maximum time in seconds can be recorded with the next movie clip.*
2. Set the Exposure Compensation and Macro mode if it is appropriate.
3. Look through the viewfinder to determine the image composition, and then press the ▲ (W) and ▼ (T) buttons to set the subject size.
 - *The optical zoom will not operate during movie recording. (Perform the operation before pressing the shutter button.)*
4. Lightly press the shutter button (halfway) to lock the focus and exposure.
5. Gently press the shutter button completely to start movie recording. Press the Shutter button and release again to stop recording.
 - *The card access LED will light indicating image data is being written to the CompactFlash card.*
 - *During recording, "Rec" appears on the right bottom side of the screen with a red dot and the frame counter will count down the remaining time.*

Note : Total recording time with an 16 MB CompactFlash card is approximately 70 seconds. The movie recording rate is approximately 0.23 MB per second. Actual CompactFlash card capacity depends on the subject and the number of still images captured.

Recording movies with the Remote Control

The remote control can be used to record movie clips up to 5m away. Simply point the remote control toward the camera and press the release button to start and stop the recording.

When pressing the release button, the self-timer remote control LED will blink before the camera starts to record. The LED will glow to indicate the camera is recording. Pressing the release button again will stop the recording instantly. The remote control may not operate with backlit subjects or under fluorescent light.

Playback Images

Playback Images ▶

Recorded images can be displayed on the LCD monitor and on the TV monitor.

Viewing Images

1. Set the main switch to **[]**. The latest image recorded will be displayed.
 - Movies clips is indicated by the movie icon displayed with a thumbnail of the first frame.
 - When there is no image data, the message "No image" will appear.
2. Press the **◀ / ▶** buttons to browse the previously / succeeding recorded images.
3. Press the **▲** button to display the image's information. Press the **▼** button to return to playback mode.
4. To playback a voice memo accompanying with a still image, press the **ENTER** button. To cancel the audio playback, press the **▼** button. Voice memo is indicated by an audio track icon [**♪**].

Viewing Movies

1. Press the **◀ / ▶** buttons to display the movie clips to be viewed.
2. Press the **Enter** button. The playback of the movie will start.
3. Press **Enter** button once to pause the playback. Press **ENTER** button again to resume the playback. Press the **▼** button to stop the playback. When playback is finished, the screen returns to the initial screen.

Viewing Multiple Images (Index Playback)

Images of four or nine thumbnail are displayed at one time on the LCD monitor. This function is useful for quickly locating the desired image to display. In playback mode, toggle the **DISPLAY** button **[]** to cycle through the display formats: full display, image only, index playback.



In index playback, press the **◀ / ▶** buttons to move the yellow border to the next or the previous image. The index playback format can be changed to nine or four thumbnail images in the basic section of the playback mode menu. (Page 34)

Enlarged Playback

1. Select the image to display.
2. Toggle the magnification button **[]** will cycle through the enlarged playback 2X, 2.5X, 3.2X. The degree of magnification is displayed on the LCD monitor.
3. Press the **◀ / ▶ / ▲ / ▼** button to scroll the image and display the desired portion.
4. Press the magnification button **[]** returns the screen to the original 1x display.

Magnification	1st press	2nd press	3rd press
Image Size			
2048x1536	2X	2.5X	3.2X
1600x1200	2X	2.5X	3.2X
1280x960	2X	2.5X	3.2X
1024x768 (Digital Zoom)	2X	2.5X	3.2X
640x480	2X	-	-

Viewing Images on a TV

The camera is compatible with the NTSC and PAL standards. The video output setting can be checked and set in the custom 2 section of the setup menu. (Page 37)

1. Turn off the TV and the camera.
2. Insert the mini-plug end of the AV cable into the camera's video out terminal.
3. Plug the other end of AV cable into the video and audio input terminals on the TV. The yellow plug is for video output. The white plug is for the audio output.
4. Turn on the TV.
5. Change the TV to the video channel.
6. Set the camera to the Playback mode  .
7. View images as described in the playback section.(Page 24)

- *The camera's LCD monitor will not activated when the camera is attached to a TV.*
- *The audio output will also be heard through the camera's speaker when the camera is attached to a TV.*

Advanced Operating Modes and Menus

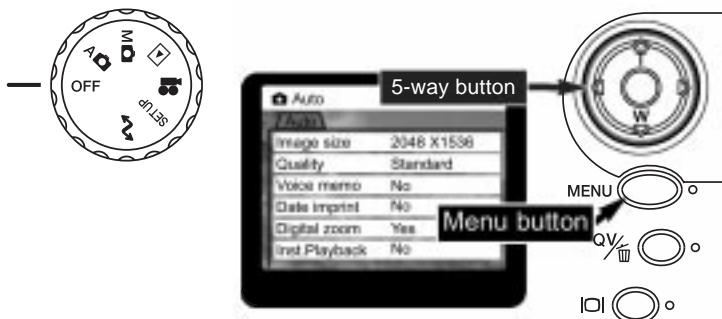
Navigating the menu

You can access the advanced camera setting to customize your camera according to your personal preference. To access the advanced camera setting with different camera modes (Auto Recording, Manual Recording, SETUP), the built-in Color LCD monitor is required.

Settings made with the mode menu will remain in effect until changed or the camera is reset to its default settings.

Navigating the Menu of each camera operating mode:

1. Set the main switch to the desired operating mode.
2. Press the **MENU** button.
3. Use the **◀ / ▶** buttons of 5-way button to highlight the appropriate menu tab.
4. Use the **▲ / ▼** buttons of 5-way button to scroll through menu options.



Making a menu selection:

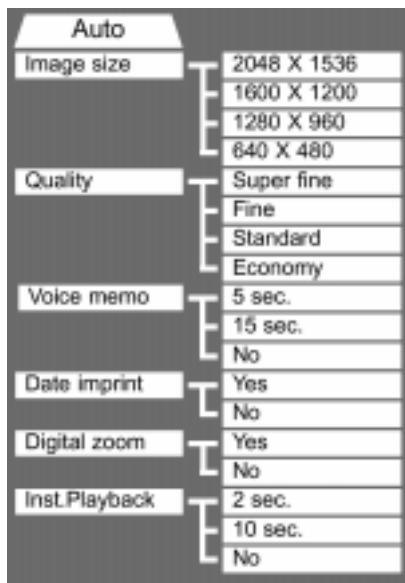
5. With the menu option to be changed highlighted, press the **▶** button. A drop down menu appears, listing the available options. The settings will be displayed with the current setting highlighted. To return to the menu option, press the **◀** button.
6. Use the **▲ / ▼** buttons to highlight the new settings
7. Press the center of **Enter** button to confirm a setting.
8. Once a setting has been set, the cursor will return to the menu options and the new setting will be displayed. Repeat steps 3~7 for any additional menus. To exit the menu mode, press the **MENU** button again.

Auto Recording Mode Menu

Auto Recording menu contains Image size, image quality, voice memo, date imprint, digital zoom, instant playback options.

Image Size

This camera has four image size settings : 2048x1536, 1600x1200, 1280x960, 640x480. Changing image size affects the number of pixel in each image. The greater the image size, the larger the file size. Image size must be set before the picture is taken. Changes made to image size are displayed on the data panel and LCD monitor.



Quality

This camera has four image quality settings : super fine, fine, standard, and economy. Always select the desired setting before taking the picture. Image quality controls the rate of compression, but has no effect on the number of pixels in the image. The higher the image quality, the lower the rate of compression and the larger the file sizes.

Image Quality	Description	File Type
Super fine	the highest quality image and the largest file sizes.	TIFF
Fine	high quality image	JPEG
Standard	the default setting	JPEG
Economy	the smallest file sizes.	JPEG

- *Depending on image size, when capturing super-fine images, a delay of up to 50 seconds can occur as the image is saved to the CompactFlash card. The LCD monitor will be blank and the card access LED will glow during saving period.*

Voice Memo

Voice memo allows a five or fifteen second audio track to be recorded with a still image. The function is activated and the length of the recording time is set on auto recording mode menu. In manual recording mode, voice memo is controlled in the custom 2 section of the manual recording menu. When the function is active, the microphone icon  is displayed on the status LCD and LCD monitor. The voice memo must be set before taking a picture. It will remain in effect until reset.

After an image is captured, a progress bar screen will appear indicating the audio recording has started and display the amount of time remaining. The recording will automatically stop when the set time has elapsed. To cancel the recording and erase the audio track, press the ▼ button or the shutter button before the recording has finished.

Voice memo can be used with all drive modes. When using continuous advance or bracketing, the audio file is attached to the last image in the series. The voice memo cannot be played back in quick view; it can only be heard in the playback mode. Images with voice memo audio tracks have a (♪) icon displayed with them. When making audio recording, be careful not to touch or cover the microphone. The quality of the recording is proportional to the subject to microphone distance; the closer to the microphone the better the sound recording.

Date Imprint

The date of recording can be printed directly on the image. The imprinting function must be activated before the image is taken. Once activated, the date will continue to be imprinted until the function is reset; a yellow bar is displayed behind the frame counter on the monitor to indicate the imprinting function is active.

Date imprinting is activated with auto recording mode menu. In manual recording, date imprinting is controlled in the custom 2 section of manual recording menu.

The date can be imprinted in three formats : year/month/day, month/day/year, and day/month/year. The date and date format are set in the custom 2 section of the setup mode menu.(Page 37)

Digital Zoom

The digital zoom doubles the lens magnification. It can be disabled in the menu mode of either auto recording or manual recording. When an image is taken with the digital zoom, the final image size depends on the image size setting on the camera as below chart.

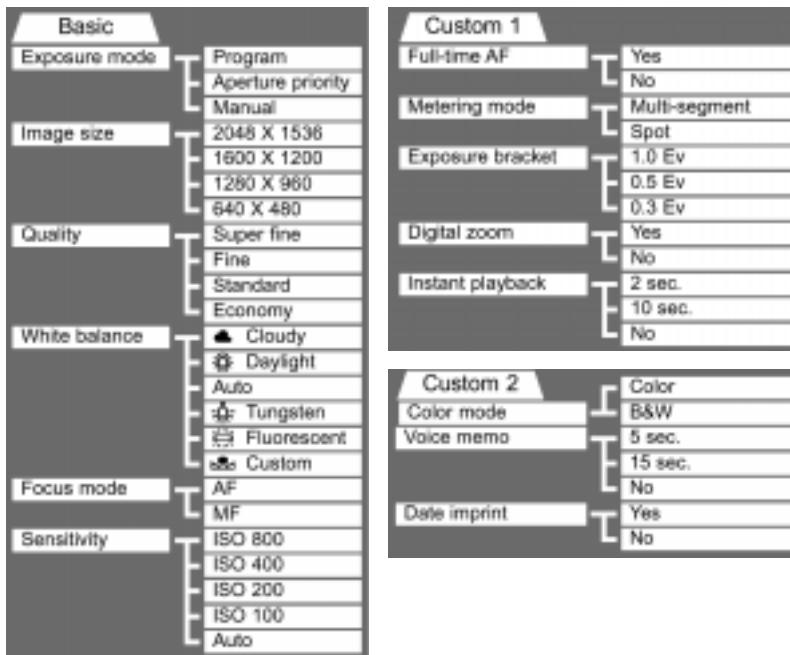
Image size setting	2048x1536	1600x1200	1280x960	640x480
Size of recorded image	1024x768	1024x768	1024x768	640x480

Inst. Playback

After an image is captured, it can be displayed on the monitor for 2 or 10 seconds before being saved. During this preview, user will have the option, by means of an on-screen prompt, of deleting the image just captured by pressing the  button, or storing the preview image immediately by pressing the **Enter** button.

Manual Recording Mode Menu

Manual recording mode menu contains three sections: Basic, Custom1, Custom 2.



Exposure Mode

Three exposure modes allow extensive control over image making: program, aperture priority, and manual exposure.

Program

The program controls both the shutter speed and aperture to ensure perfect exposures. The sophisticated exposure system allows the photographer the freedom to shoot without having to worry about the technical details of exposure settings. The shutter speed and aperture values of the exposure are displayed on the monitor. If shutter speed and aperture displays turn red, the scene is beyond the exposure control range of the camera.

Aperture Priority - A

The photographer selects the aperture and the camera sets the appropriate shutter speed to ensure the correct exposure. When aperture priority is selected, the aperture value on the monitor turns blue and a double arrow icon appears next to it. Use the **◀ / ▶** buttons to

set the desired aperture value. Press the shutter button halfway down to activate the exposure system, the corresponding shutter speed will be displayed on the monitor. The aperture value can be changed in two steps : f/3.0 and f/6.7 at the lens' wide angle position, f/3.6 and f/8.0 at the lens' telephoto position. As the lens is zoomed, the aperture will automatically shift. If the aperture value is beyond the shutter speed range, the shutter speed display will turn red on the monitor.

Manual Exposure - M

Manual exposure mode allows individual selection of apertures and shutter speeds. This mode overrides the exposure system giving the photographer total control over the final exposure. The shutter speeds can be changed in half stop increments between 1/1000 and 4 seconds. The shutter speed and aperture display will turn red on the monitor if the image is extremely under or overexposed.

Press the **EV**  button to switch between the shutter speed and aperture display. The value can be set with a double arrow icon to the left of it by pressing the **◀ / ▶** buttons.

White Balance

The white balance can be adjusted so that images can be recorded in natural colors no matter what light source the subject is exposed to.

Auto

The automatic white balance compensates for the color temperature of a scene. In most cases, the AUTO setting will balance the ambient light and create beautiful images.

Preset

Preset white balance settings must be set before the image is taken.

	Cloudy	For overcast outdoor scenes.
	Daylight	For outdoor and sunlit subjects
	Tungsten	For incandescent lighting
	Fluorescent	For fluorescent lighting

Custom

Custom white balance allows a photographer to calibrate the camera to a specific lighting condition. The setting can be used repeatedly until reset.

How to set custom white balance:

1. Select the "custom" in the white balance option in the basic section. Select set or recall message appears.
2. Use **◀ / ▶** to select "Set" and press **Enter**. Calibration screen appears.
3. Fill the image area with a white object. (A blank piece of white paper is ideal.) The object does not need to be focused.
4. Press the shutter button to make the calibration. The custom setting will remain in effect until another calibration is made or the white balance setting is changed.

■ If the custom white balance setting needs to be used again, select "Recall" of step 2 and press Enter, the last custom white balance setting will be applied to the camera.

Focus Mode

This camera features autofocus and manual focus control.

AutoFocus (AF)

Autofocus will produce excellent results in almost every situation. Under some special condition, autofocus system does not work accurately, manual focus are used.

Manual Focus (MF)

1. Select the "MF" in the Focus mode option in the basic section. "Zoom" and "Focus" will appear at the top of the LCD monitor.
2. Press the **Enter** button to switch between the two functions. The function highlighted in blue is active.
3. Press the **▲ / ▼** buttons to adjust focus distance and zoom accordingly. The approximate focus distance is displayed at the bottom of the monitor next to the frame counter.

■ *When the focus is set to the minimum focusing distance, as the lens is zoomed, the distance will change to match the minimum focusing distance at each focal length.*

■ *Manual focus is not available when the monitor is turned off. The 5-way button function will automatically switch to the zoom.*

Sensitivity

Five camera sensitivity settings can be selected : **Auto, 100, 200, 400 and 800**. The numeric values are based on an ISO equivalent. ISO is the standard used to indicate film sensitivity, the higher the number, the more sensitive the film, the more noise the image.

The auto setting automatically adjusts the camera sensitivity to the light conditions between ISO 100 and 400. When the flash is engaged and sensitivity is set to auto, the ISO value is set to 200. The changes in ISO also affect the flash range, see below.

ISO	Flash range (wide angle)	Flash range (telephoto)
Auto	0.5~3.5 m	0.9 ~ 3.0 m
100	0.5~2.4 m	0.9 ~ 2.1 m
200	0.5~3.5 m	0.9 ~ 3.0 m
400	0.5~4.9 m	0.9 ~ 4.2 m
800	0.5~7.0 m	0.9 ~ 6.0 m

Full-time AF

With full-time AF active, the autofocus system continuously focuses to keep the monitor image sharp. This also reduces the autofocusing time when taking pictures. When the monitor is turned off or when the camera is set to manual focus, full-time AF is disabled. Turning the full-time AF function off can help conserve battery power.

Metering Mode

Multi-Segment metering uses 256 segments to measure luminance and color. This data is combined with distance information to calculate the camera exposure. This advanced metering system will give accurate exposures in almost all situations.

Spot Metering uses a small area within the image to calculate the exposure. When this mode is selected, a small circle will appear in the middle of the live image indicating the measuring area. The spot allows precise exposure measurements of a particular subject without being influenced by extremely bright or dark areas within the scene.

Exposure Bracket

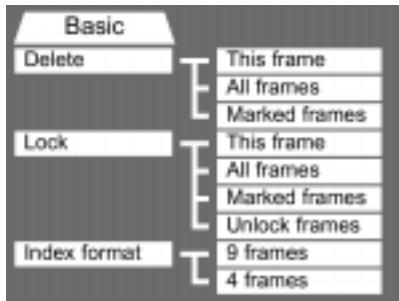
In manual recording mode, the bracketing increment can be changed in three steps: 0.3 EV, 0.5 EV, 1.0 EV. The larger the number, the greater the difference in exposure between the images in the bracketing series. For information on bracketing drive mode, see page 19.

Color Mode

To select between 24- bit color and 8- bit monochrome images. It has no effect on image file size. When select B&W, through image on the LCD monitor will be displayed in black-and-white.

Playback Mode Menu

Playback mode menu contains three sections: Basic, Custom 1, Custom 2.



Delete (Deleting Images)

Single, multiple, or all images in a folder can be deleted. Before an image is deleted, a confirmation screen will appear; choosing "Yes" will execute the operation, "No" will cancel the operation. To delete images in other folders, the folder must first be selected in the custom 1 section of the setup menu. The delete function will only delete unlocked images.

- This frame - To delete the image displayed.
- All frames - To delete all images on the camera at one time in the selected folder.
- Marked frames - To delete marked single/multiple images. When this setting is chosen, the frame selection screen will be displayed.

To delete marked images:

1. Select the "marked frames" of the Delete option in the basic section.
2. Use the **◀ / ▶** buttons to highlight the image to be deleted.
3. Press the **▲** button to mark the image with a trash can icon . To deselect an image for deletion, highlight it with the yellow border and press the **▼** button.
4. Press the **Enter** button, the confirmation screen appears. Select YES and press **Enter** button will delete the marked images. Select No and press **menu** button will return to the playback menu.

Lock (Locking Images)

Recorded images can be locked to prevent them from being accidentally erased. Locking an image will protect it from a delete function. However, the formatting function will erase all images on a CompactFlash card whether locked or not.

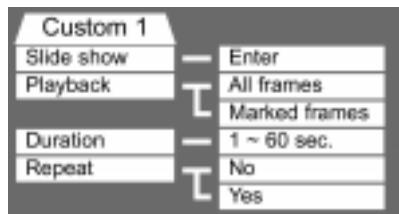
- This frame - To lock the image displayed.
- All frames - To lock all images at one time in the selected folder.
- Marked frames - To lock marked single/multiple images. When this setting is chosen, the frame selection screen will be displayed.
- Unlock frames - To unlock all the images in a folder.

To lock marked images:

1. Select the "marked frames" of the lock option in the basic section.
2. Use the **◀ / ▶** buttons to highlight the image to be locked
3. Press the **▲** button to mark the image with a key icon  . To unlock an image, highlight it with the yellow border and press the **▼** button.
4. Press the Enter button to lock the marked frames. Press menu button will return to the playback menu.

Index Format

The index format option allows the index playback to be displayed with four or nine images. This affects all index displays.



The custom 1 section of the playback mode menu controls slide show function.

Slide show

- Enter-To start the slide show. During the slide show, press the Enter button to pause. Press **▼** button to stop and return to the playback mode menu.

Playback

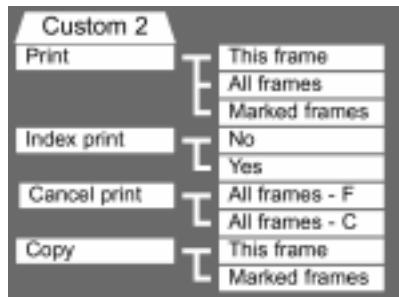
To select all the images or marked frames in the folder to be displayed in the slide show.

Duration

To select the period each image will be displayed during the slide show.

Repeat

Selecting "Yes" will cause the slide show to repeat until it is canceled using the **▼** button. "No" will end the slide show and return to playback mode menu when all the images have been displayed once.



Print (Selecting the Image to Print)

Images cannot be printed by the camera itself. This menu option is for giving instructing about the images and the quantity of print required for automatic output of images within a card to a DPOF (Digital Print Order Format) compatible digital printer. When a DPOF file is created, a misc. folder is automatically made on the CF card to store it. Simply insert the CF card into the CF card slot of DPOF compatible printers.

To print (create DPOF file) marked images:

- This frame - To create a DPOF file for the image displayed or highlighted in playback mode.
- All frames - To create DPOF files for all images in the folder specified in the custom 1 section of the setup menu.
- Marked frames - To select and create DPOF files for multiple images. When selected, the frame selection screen appears.

1. Use the **◀ / ▶** buttons to highlight the image to be printed
2. Press the **▲** button to mark the image with a printer icon  .
3. Press the **▲ / ▼** button to increase/decrease the number of copies. A maximum of 9 copies can be set. To deselect an image for printing, press the **▼** button until the number of copies reaches zero and the printer icon disappears.
4. Press Enter button to return to the playback menu.

Index print

To create an index print of all the images in the folder. The number of images printed per sheet differs between printers. The information printed with the thumbnails can vary.

Cancel print

- All frames - F - To delete all DPOF printing files in the folder. Folders are selected in the custom 1 of the setup menu.
- All frames - C - To delete all DPOF printing files on the CompactFlash card.

Copy (Copying Images)

Images files can be copied from one CompactFlash card to another. Up to 8 MB of data can be transferred. Every time the copy function is used, a new folder is automatically created for the images. Images with voice memo are copied with their audio files. DPOF information is not copied.

This frame - To copy the image displayed or highlighted in playback mode.

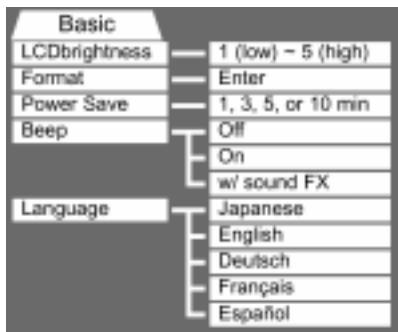
- Marked frames - to copy single or multiple images. When selected, the frame selection screen appears.

To copy marked images:

1. Use the **◀ / ▶** buttons to highlight the image to be locked
2. Press the **▲** button to mark the image with a check icon  . To deselect an image to be copied, highlight it with the yellow border and press the **▼** button.
3. Press the Enter button to enter the copy process mode with four messages. The messages are highlighted as the copying procedure is executed. When the "Change CF Card" message is highlighted, remove the CF card from the camera and insert the CF card to which the image should be copied.
4. Press the Enter button to continue. Wait until the copy completed message is highlighted.
5. Press Enter button to return to the playback menu.

SETUP Mode Menu

Set the camera to **SETUP**, so that various settings can be made according to your needs. SETUP menu contains three sections: Basic, Custom 1 and Custom 2.



LCD Brightness

The screen brightness can be adjusted in five levels from 1 (low) to 5 (high). As each setting is highlighted, the monitor will adjust accordingly.

Format

The format function is used to erase all data on a CompactFlash card. Locking images will not protect them from being deleted when the card is formatted. Always format the CompactFlash card using the camera; never use a computer to format a card.

Power Save

The auto shut-off time can be changed. You can choose one of these time settings: 1, 3, 5, or 10 minutes.(see page 13)

Beep

The beep sound heard during warnings, etc. can be turned off.

Language

Use the Language option to choose the language to use for displaying camera menus and messages. By default, English is the selected language.

Note : The languages available for selection may be different on cameras in certain countries.



This section controls file number sequencing and the selection of folders.

File Number (#) Memory

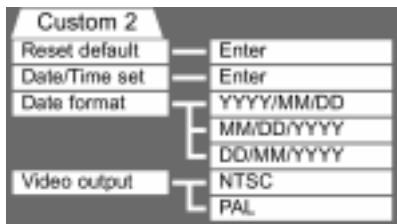
When file number memory is selected, if a new folder is created, the first file stored in the folder will have a number one greater than the last file saved. If the file number memory is disabled, the image file name will have a number one greater than the last image saved in the folder.

If file number memory is active and the CompactFlash card is changed, the first file saved to the new card will have a number one greater than the last file saved on the previous card if the new card doesn't contain an image with a greater file number. If it does, the file number of the new image will be one greater than the greatest on the card.

Select Folder

This option allows the selection of existing folders. After folder is selected, all images recorded will be placed in that folder. In quick view or playback mode, only the images in the selected folder can be viewed or edited.

Except for the all frames-C setting in the custom2 of the playback mode menu, changes made with menus only affect the images in the selected folder. To make changes to all images in multiple folders, each folder must be selected and the menu operation repeated for each folder. Formatting a CompactFlash card erases all folders regardless if they are selected or not.



Reset default

This function affects all modes. When selected, a confirmation screen will appear; choosing "YES" resets all settings to the default settings, "No" cancels the operation.

Date/Time set

The setting range is between January 1, 2001 and December 31, 2099.

Date format

The date format that is displayed or imprinted can be changed :YYYY/MM/DD (year, month, day), MM/DD/YYYY(month, day, year), DD/MM/YYYY(day, month, year). Simply select the format and confirm it by pressing Enter button. The new format will be displayed on the menu.

Video output

Camera images can be displayed on a TV. The video output can be changed between NTSC and PAL. Check which standard is used in your region to play back images on your TV set.

Transferring data to the Computer

Transferring data to the Computer

Read this section carefully before connecting the camera to a computer. Details on using bundled software are found in its on-line help. For the operations of computers or operating system, please refer to the manual supplied with your computer.

System Requirements

- Windows 98/2000/Me, Pentium 166 MHz or higher for PC Users
- Mac OS 8.6 ~ 9.1, Power PC CPU for Macintosh Users
- Color monitor (800x600 24-bit or higher recommended)
- Available USB port, CD-ROM drive
- 80 MB available hard disk space
- At least 32 MB RAM

Driver Installation

If you are planning to transfer your images into a computer, make sure to complete the camera driver installation before the camera connection. The steps are as below:

For Windows

1. Insert the software CD-ROM disc into your CD-ROM drive
2. The setup program starts. Press the Camera driver icon and follow the on screen instructions to complete the camera driver installation.
3. Restart the computer

For Macintosh

1. Insert the software CD-ROM disc into your CD-ROM drive
2. Double click the install icon inside the folder of the software CD-ROM and follow the on screen instructions to complete the camera driver installation.
3. Restart the computer

Downloading Images

1. Turn on the power of your PC.
2. Connect the camera and PC using the USB cable supplied.
3. Set the main switch on the top of the camera to  . "PC" will appear on the status LCD.
4. Double click "My Computer".
5. Double click the newly created "removable device (G)" .

■ *This assumes that the new device is drive G. The drive letter may differ depending on the PC you are using.*

■ *An "undefined Name" icon will appear on the desktop if connected with Macintosh computer.*

6. Double click the "DCIM" folder.
7. Double click the inside folder to display the icon of the image file.

8. Double click the file to display the image.
9. To save, copy (drag and drop) the file to the desired location on the PC.
 - The camera cannot be connected to your PC if the card is not inserted.

Warning :

- Do not disconnect the USB cable/AC adapter, or open the battery/card cover while the card access LED is on.
- Do not format the CompactFlash Card using a PC. Always use the camera to format the card.
- Images that have been altered or newly saved on an CompactFlash Card using a device other than this camera will not only play back on the camera but may cause the camera to malfunction when inserted.
- Do not change the file name of image data saved on an CompactFlash Card using a PC or save files other than image data taken by this camera.

Viewing Images on a PC

Downloaded still images can be viewed by most of the image software applications. You can find the bundled image software application (PC only) in the CD-ROM. For the operation of software application, please refer to its respective software application on-line help.

Playing back Movies on a PC

To playback a recorded movie clips on a PC, video player software is required. Macintosh users can download the latest version of QuickTime from the Apple Computer web site : <http://www.apple.com>

Windows users can download the latest version of Windows Media Player and Direct X from the Microsoft Corporation web site : <http://www.microsoft.com>

LED messages

LED messages

LED Type	Color	Status	Definition
Focus LED	Green	On	Camera ready for recording
		Blinking	Auto-focus (AF) unavailable Camera unstable warning, or when subject cannot be focused
Flash LED	Orange	On	Flash Ready
		Blinking	Flash charging Camera-shake warning (*)
CF card access LED	Red	On	Mounting CF card Saving / Deletion Process Transferring Data Reading / Playback Images Formatting card

*Camera Shaking Warning

If the shutter speed falls below the point where the camera can be safely hand held, the camera-shake warning will appear on the LCD monitor and the orange focus LED will blink slowly. Camera shake is slight blurring caused by subtle hand motion and is more pronounced at the telephoto setting of the lens than at the wide-angle setting. Although the warning appears, the shutter can still be released. If the warning appears, the following steps can be taken:

- Place the camera on a tripod
- Use the built-in flash
- Zoom the lens towards the wide-angle position until the warning disappears.

Specifications

Specifications

Image sensor	1/1.8" CCD, 3.34 mega pixels
Recording medium	CompactFlash Card (Type 1 Slot)
Recording modes	Single shot / Continuous shots / Bracket / Movie recording
Still Image pixel resolution	Still image - Super fine : 2048x1536 ; Fine: 1600 x 1200 ; Standard: 1280x960 ; Economy : 640 x 480
Movie Clips Recording	60 seconds (maximum) at 320 x 240
Audio Recording	With movie clips 60 seconds (maximum) With still image 15 seconds (maximum)
File Format	JPEG (EXIF 2.1), TIFF, DPOF, AVI, WAV
Lens	4 x power zoom lens f=7.15 ~ 28.6mm (Equivalent to 35 ~ 140mm in a 35mm film camera) F 3.0(W) ~ 3.6(T)
Focusing range	0.5m ~ ∞ at wide-angle lens position 0.9m ~ ∞ at telephoto lens position 0.16m ~ 0.6m at macro recording mode (from the CCD)
Sensitivity	Auto; ISO 100,200,400,800 (ISO equivalent)
Exposure control	Auto ; Manual : 1/3 EV step, -2.0 ~ +2.0
Metering	Center weighted light reading, spot reading
White balance	Auto, daylight, cloudy, fluorescent, tungsten, custom
Shutter speed	4 ~ 1/1000 sec , bulb (15 sec maximum)
Flash	Built-in : Auto, Fill-in, Fill-off & Red-eye Reduction
Digital zoom	2.0X
LCD monitor	1.8" color TFT LCD
Playback	Single frame, close-up playback, movie playback, index playback, slideshow
Deletion	Single frame/all frames/format
LED display	Self-timer LED; Focus LED, Flash LED ; card access LED
Power supply	4 x AA (Alkaline, NiMH & Ni-Cd), AC-DC adapter
I/O terminals	USB terminal, AC power port, Video Output (NTSC or PAL)
Certification	CE, FCC
Operating temperature	0 °C ~ 40 °C (Humidity: 5% ~ 85% no condensing)
Size	130 x 65.7 x 70 mm
Weight	Approx. 330 g (excl. batteries, CompactFlash Card)

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